

## **DIGITAL CROSS CANCELLATION SYSTEM**

### **ABSTRACT**

An amplification system and method is provided that employs a digital cross-cancellation technique which provides a separate digital signal to be input to a separate DAC to generate a cancellation signal. The cancellation signal is added to the output of the amplifier to produce a final signal with substantially reduced distortion and/or out-of-band emissions. The cancellation signal can be pre-computed or derived by generating an inverted version of the wanted signal, and combining it with a portion of the output signal to determine the error or unwanted portion of the output signal. This error signal is then combined with a delayed version of the output signal.